

2. (Twice Amended) A method for decreasing cyclin-dependent kinase activity in a plant, comprising the steps of:

- E₅*
- (i) introducing into a plant cell a nucleic molecule encoding a cyclin-dependent kinase inhibitor (CKI) which binds CDC2a, under the control of a regulatory sequence which controls expression of the cyclin-dependent kinase inhibitor;
 - (ii) expressing said nucleic acid molecule; and
 - (iii) regenerating a plant therefrom, which plant has decreased cyclin dependent kinase activity.

5. (Twice Amended) A method for increasing the level of cyclin-dependent kinase inhibitor (CKI) which binds CDC2a, in a plant cell relative to corresponding cells of a wild type plant, said method comprising the steps of:

- E₄*
- (i) introducing into a plant cell a nucleic acid molecule encoding a cyclin-dependent kinase inhibitor under the control of a promoter which functions in plants; and
 - (ii) expressing said nucleic acid molecule in said plant cell, thereby increasing the level of cyclin-dependent kinase inhibitor in said plant cell.

7. (Amended) A method for increasing plant cell size, said method comprising the steps of:

- E₇*
- (i) introducing into a plant cell a nucleic acid molecule encoding a cyclin-dependent kinase inhibitor (CKI) which binds CDC2a, under the control of promoter which functions in plants; and
 - (ii) expressing said nucleic acid molecule in said plant cell, thereby [modifying] increasing plant cell size.

11. (Twice Amended) A method for decreasing cell number in a plant, comprising the steps of:

E₈

(i) introducing into a plant cell a nucleic acid molecule encoding a cyclin-dependent kinase inhibitor (CKI) which binds CDC2a, under the control of a promoter which functions in plants;

(ii) expressing said nucleic acid molecule in said plant cell; and

(iii) regenerating a plant from said plant cell, wherein said plant has decreased cell number.

14. (Amended) A method of increasing leaf serration in a plant, comprising the steps of:

(i) introducing into a plant cell a nucleic acid molecule encoding a cyclin-dependent kinase inhibitor (CKI) which binds CDC2a, under the control of a promoter which functions in plants;

(ii) expressing said nucleic acid molecule in said plant cell; and

(iii) regenerating a plant from said plant cell, said plant having increased leaf serration.

17. (Twice Amended) A method of increasing stomata size of a plant, comprising the steps of:

(i) introducing into a plant cell a nucleic acid molecule encoding a cyclin-dependent kinase inhibitor (CKI) which binds CDC2a, under the control of a promoter which functions in plants; and

(ii) expressing said nucleic acid molecule in said plant cell; and

(iii) regenerating a plant from said plant cell, said plant having increased stomata size relative to corresponding wild type plants.

21. (Twice Amended) A method of reducing petal size in a plant, comprising the steps

of:

E₁₁ (i) introducing into a plant cell a nucleic acid molecule encoding a cyclin-dependent kinase inhibitor (CKI) which binds CDC2a, under the control of a promoter which functions in plants;

(ii) expressing said nucleic acid molecule in the plant cell; and

(iii) regenerating a plant from said plant cell, wherein said plant has flowers with reduced petal size.

25. (Twice Amended) A method of reducing leaf venation in a plant, comprising the

steps of:

E₁₂ (i) introducing into a plant cell a nucleic acid molecule encoding a cyclin-dependent kinase inhibitor (CKI) which binds CDC2a, under the control of a promoter which functions in plants;

(ii) expressing said nucleic acid molecule in the plant cell; and

(iii) regenerating a plant from said plant cell, wherein said plant has leaves with reduced leaf venation.

27. (Twice Amended) A method of decreasing endoreduplication and ploidy level in a

E₁₃ plant cell, comprising the steps of:

(i) introducing into a plant cell a nucleic acid molecule encoding a cyclin-dependent kinase inhibitor (CKI) which binds CDC2a, under the control of a promoter which functions in plants; and

(ii) expressing said nucleic acid molecule in the plant cell.

30. (Twice Amended) A method of reducing plant seed size, comprising the steps of:

E₁₄ (i) introducing into a plant cell a nucleic acid molecule encoding a cyclin-dependent kinase inhibitor (CKI) which binds CDC2a, under the control of a promoter which functions in plants;

(ii) expressing said nucleic acid molecule in the plant cell; and

(iii) regenerating a plant from said plant cell, wherein said plant has decreased seed size relative to corresponding wild type plants.

E₁₅ 36. (Twice Amended) A transgenic plant, a variety obtained therefrom with essentially the same characteristics resulting from the transgene, a plant part, or plant cell which comprises a nucleotide sequence encoding a cyclin-dependent kinase inhibitor (CKI) which binds CDC2a, under the control of a promoter which functions in plants wherein said nucleotide sequence encoding a cyclin-dependent kinase inhibitor is heterologous to the genome of the transgenic plant, or is homologous but additional to the genome of the transgenic plant or has been introduced into the transgenic plant, plant part or plant cell by recombinant DNA means.

E₁₆ 37. (Amended) The transgenic plant of claim 36 having decreased cyclin-dependent kinase activity.

38. (Amended) The transgenic plant of claim 36 having an increased level of CKI.

E₁₇ 43. (Amended) The transgenic plant of claim 36 having flowers with reduced petal size.

44. (Amended) The transgenic plant of claim 36 having reduced leaf veination.

45. (Amended) The transgenic plant of claim 36 having cells with decreased ploidy levels.

E₁₈ 47. (Amended) The transgenic plant of claim 36 having reduced seed size.

49. (Twice Amended) The transgenic plant of claim 36, wherein at least one of petals,

E₁₉ leaves or stems comprise cells of increased size relative to corresponding wild type plants.

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53. (Twice Amended) The method of claims 2, 5, 7-11, 13-25, 27, 30, or 31, wherein the

nucleic acid molecule comprises the nucleotide sequence as set forth in SEQ ID NO:1.

54. (Twice Amended) The method of claims 2, 5, 7-11, 13-25, 27, 30 or 31 wherein the

CKI comprises the consensus amino acid sequence as set forth in any one of SEQ ID NO:34,

SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37, SEQ ID NO:38 or SEQ ID NO:39.

56. (Twice Amended) Harvestable parts or propagation material from the transgenic

plant of claim 36, comprising the CKI which binds CDC2a that was introduced into the parent

plant.

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57. (Twice Amended) Cut flowers from the transgenic plant of claim 36, comprising the

CKI which binds CDC2a that was introduced into the parent plant.